


Smoking in Special Populations: Psychiatric and Alcohol Use Disorders

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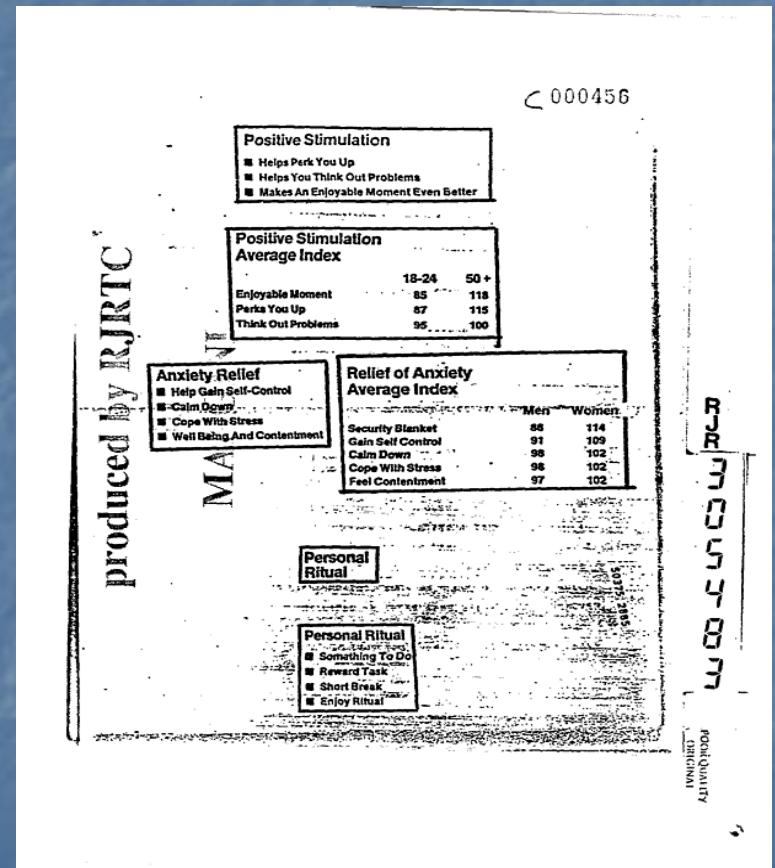


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- A cartoon illustration of Joe Camel, a brown camel with a human-like face, wearing a black tuxedo with a white shirt and a black bow tie. He is holding a lit cigarette in his mouth. The background is a solid blue color. To the right of Joe Camel, the words "Can We Talk?" are written in a large, white, stylized font. The text is partially obscured by the camel's head and body.
- In the first 3 years of Joe Camel, Camel's share of the under-18 tobacco market jumped from 0.5% to 32.8% representing \$470 million in sales.

The 1981 R.J. Reynolds Tobacco Co. Segmentation Study

- Described smokers who smoked for
 - "mood enhancement"
 - "helps perk you up"
 - "calm down"
 - "cope with stress"

Mangini v. R.J. Reynolds Tobacco Company, Civil Case No. 939359





Throat Specialists report on 30-Day Test of Camel Smokers—

*"Not one single case of throat irritation
due to smoking **Camels!**"*

• Yes, these were the findings in a total of 2,470 weekly examinations of hundreds of men and women from coast to coast who smoked only Camels for 30 consecutive days! And the smokers in this test averaged one to two packages of Camels a day!

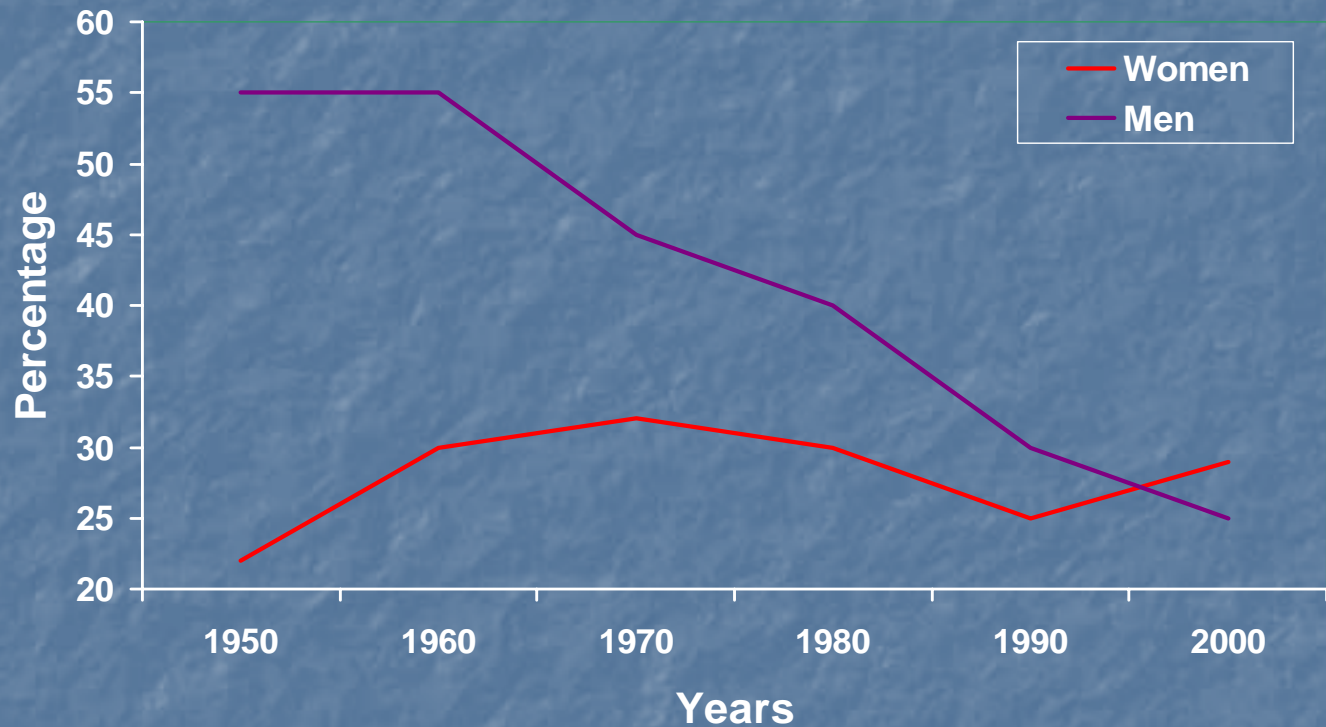


According to a Nationwide survey:

***More Doctors Smoke Camels**
than any other cigarette!*

When three leading independent research organizations asked 113,597 doctors what cigarette they smoked, the brand named most was Camel!

Smoking Prevalence in the U.S.



JAMA, 1989:261



Tobacco Use Disparities

- Ethnic minorities
- Low SES
- Pregnant women
- Youth
- Coexisting psychiatric disorders

Association of Smoking and Psychiatric Disorders

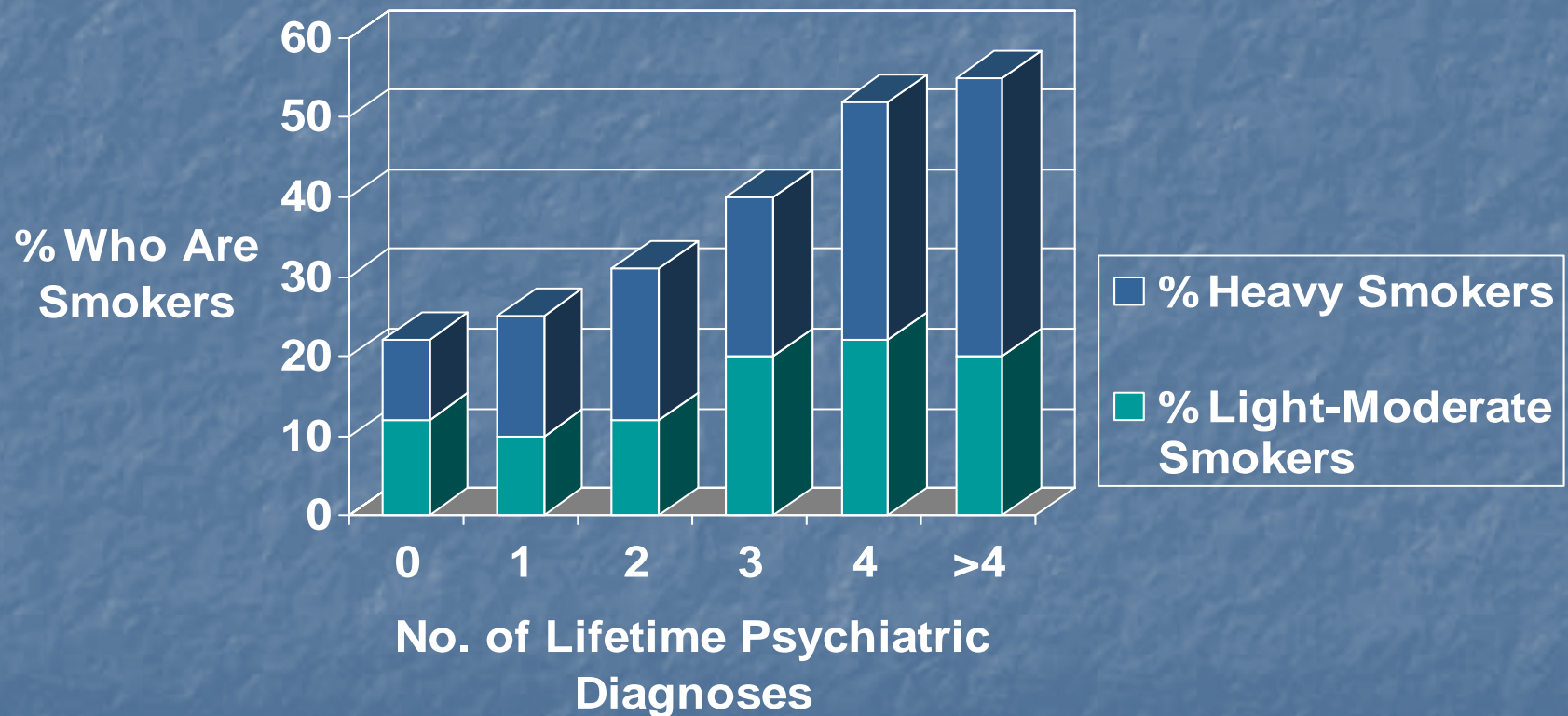
- Rates among specific diagnoses
 - General population
 - 22-30%
 - Panic disorder
 - 35%
 - Alcohol abuse
 - 43%
 - Depression
 - 49%
 - Schizophrenia
 - 88%

Smoking Status According to Psychiatric Diagnosis

| | US Population | Current Smokers, % | Lifetime Smokers, % |
|----------------------------------|--|--------------------|--|
| Total | 100 | 28.5 | 47.1 |
| No mental illness | 50.7 | 22.5 | 39.1 |
| Ever mental illness | 49.3 | 34.8 | 55.3 |
| Any mental illness in past month | 28.3  | 41.0 | 59.0  |

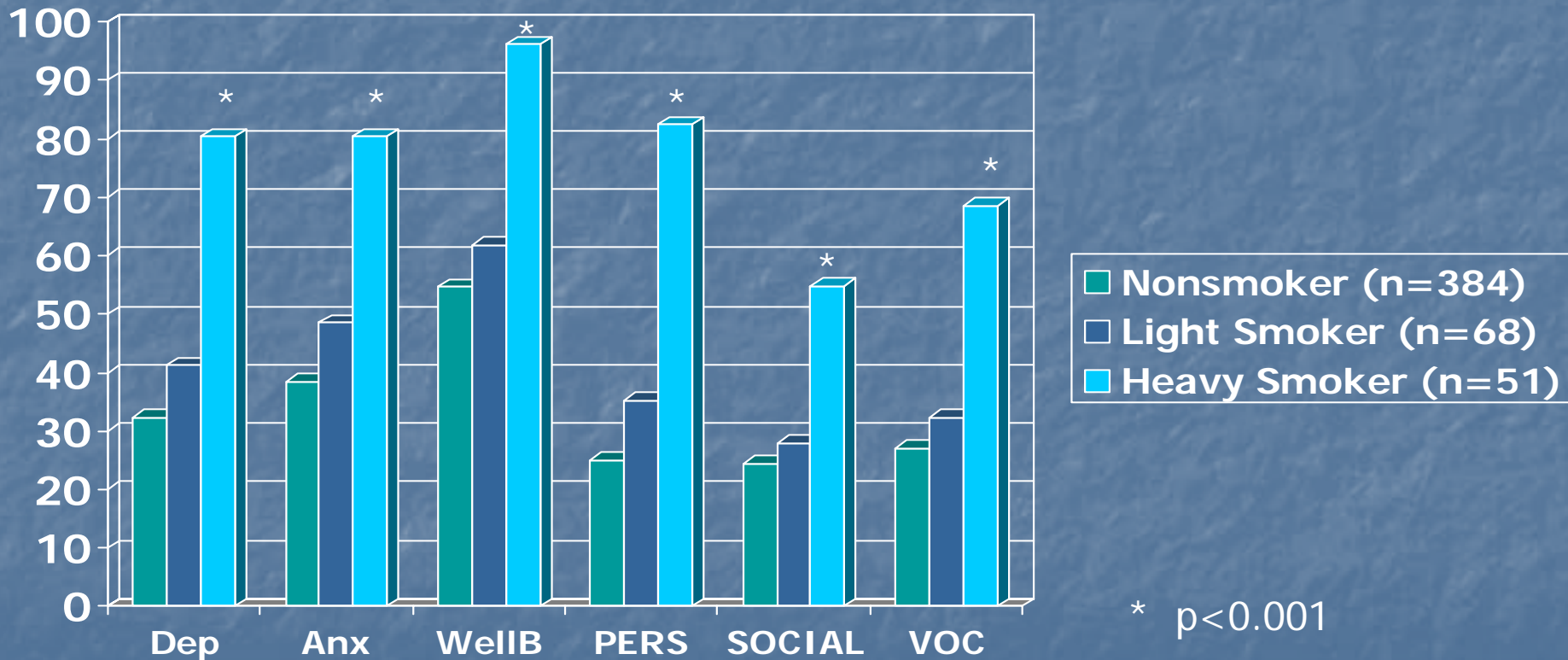
Adapted from Lasser, 2000

Smoking Rates Compared to the Number of Lifetime Psychiatric Diagnoses



Adapted from Lasser, 2000

Smoking and Mental Health Problems in Treatment-Seeking University Students (n=503)



Heiligenstein and Stevens, 2005
Unpublished data

Broad Complications of Smoking and Psychiatric Disorders

- Additive mortality risks
- Smoking and nicotine dependence
 - Associated with nearly all psychiatric disorders
- Individuals with psychiatric diagnosis in past month
 - *Consume 45% of cigarettes smoked in U.S*
 - Dierker, 2001
 - Jorm, 1999
 - Breslau, 2003

Specific Complications of Smoking and Psychiatric Disorders

- Complicates treatment
 - Lowers psychotropic blood levels (induces CYP1A2)
 - Zyprexa
 - Clozaril
 - TCA's
- Smokers experience more tardive dyskinesia
- Depressed smokers have higher suicide rates than depressed nonsmokers
 - Bruce, 1994
 - Lohr, 1992
 - Yassa, 1987

Fundamental Problems in Smokers with Coexisting Psychiatric Disorders

- Lower rate of quit attempts
 - 30% vs. 42%
- Higher tobacco relapse rates
- Feel excluded from mainstream cessation programs
- Both neurobiological and psychosocial factors reinforce use of nicotine

Neuropharmacology of Cigarette Smoke

- Major psychoactive component is nicotine
 - Binds to nicotinic acetylcholine receptors
 - Endogenous agonist is acetylcholine
- Receptors are widely distributed in the CNS
 - Cognitive processes
 - Emotions
 - Reward pathways

Smoking and Mood

- Cigarette smoke possesses transient MAOI properties
- Reinforcing qualities mediated by ability to raise central dopamine levels
 - Quattrochi, 2000

Be Happy-**GO LUCKY!**



In a cigarette, taste makes the difference—
and Luckies taste better!

The difference between "just smoking" and really enjoying your smoke is the taste of a cigarette.

You can taste the difference in the smoothest, richest, most enjoyable taste of a Lucky—and for two important reasons.



Behind, Luckies are made to taste better. A month after month, cigarette companies, measuring those important factors of "tastiness" that affect the taste of cigarettes, prove Lucky Strike is the best made of all.

Be smart, for a Lucky. Enjoy the best taste of truly fine tobacco in a great cigarette—Lucky Strike! Be Happy—Go Lucky!

Nicotine and Cognition

- Improves working memory, attention, information processing
- Prevents the normal decline in cognitive functioning seen with sleep deprivation
- Enhances recall of information
 - Rusted, 1994



Smoking and HRQL

- Heavy smokers
 - Score lower than the 36th percentile on mental health dimensions (SF-36)
 - Have more anxiety and depressive symptoms
 - Have greater limitations in social functioning and emotional roles (SF-36)
 - Wilson, 1999

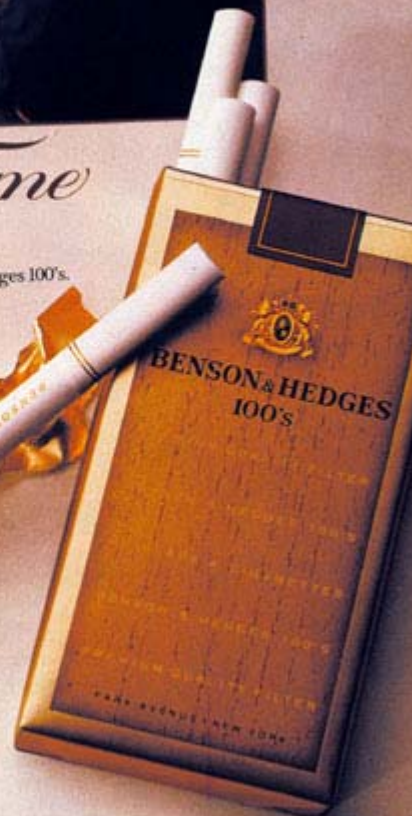


Quality Time

That time. That comfort.
That quality found only in Benson & Hedges 100's.



**B&H
100'S**



SURGEON GENERAL'S WARNING: Smoking Causes Lung Cancer, Heart Disease, Emphysema, And May Complicate Pregnancy.

© Philip Morris Inc. 1991

17 mg "tar," 1.2 mg nicotine av. per cigarette by FTC method.

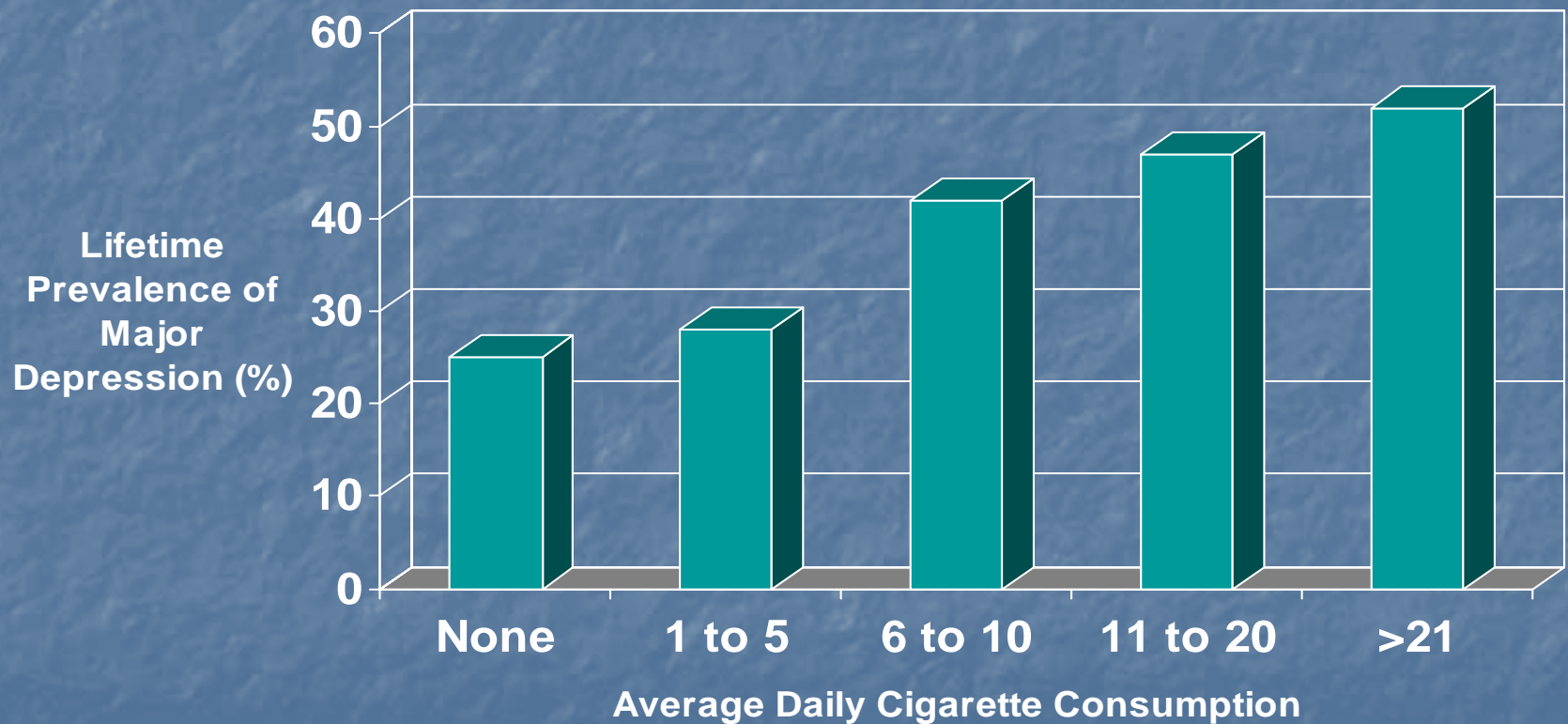
Psychosocial Factors and Smoking in Psychiatric Disorders

- For many people with chronic psychiatric disorders
 - Smoking is a major part of daily routine/structure
 - Alleviates stigma
 - Positive and negative freedoms
- Long considered integral part of psychiatric culture
 - WI Indoor Air Act
- Many clinicians believe that persons with psychiatric disorders are not able or willing to quit

Smoking and Specific Psychiatric Disorders

- Depression
- Anxiety
- Alcohol use
- Schizophrenia

Link Between Depression and Smoking



Adapted from Kendler KS, 1993

Smoking and Depression

- Depression (current) associated with
 - Inability to quit smoking
 - Increased likelihood of smoking relapse
- Depression (past/current) leads to more severe nicotine withdrawal symptoms
 - High risk for relapse in first week
 - Female risk > male
 - Quattorocki, 2000
 - Niaura, 1999

Smoking and Depression

- Depression (past) associated with
 - Delayed increase in symptoms of depression following a quit attempt
 - Risk remains high for 6 months
 - Pomerleau, 2001

NRT and Depression

- NRT alone insufficient treatment for smokers with current/past depression
 - No effect on mood
 - Cessations rates not improved
- Thorsteinsson, 2001
- Smith, 2003

SRI's as Cessation Aids in Depressed Smokers

- SRI treatment in depressed smokers
 - Can offset negative moods during a quit attempt
 - Can reduce likelihood of emergent depression during quit attempt
- Cook, 2004
- Chengappa, 2001

SMOKING.

NICOTINE

*and the stress of
daily living*



*A bid for closer patient cooperation in
adjustments of smoking hygiene*

THE pace of modern life leaves its mark on many individuals. Symptoms, though remote, sub-clinical, may be of interest to the physician, perhaps in connection with nicotine intake.* Obviously, the exploration of this potential requires the patient's close cooperation.

In this situation there is an advantage to you in advising slow-burning Camel cigarettes. Millions have changed to Camels for their superior mildness and flavor—the famous Camel “pleasure factor.”

Patient's compliance with your suggestions should lead to improved accuracy in case histories. This may present new clinical opportunities, especially when such records are grouped and studied as a whole.

* J. A. M. A., 83:1118—October 12, 1929
Brückner, H. — Die Biochemie des Tabaks, 1936
The Military Surgeon, Vol. 39, No. 1, p. 1, July, 1941

“THE CIGARETTE, THE SOLDIER, AND THE PHYSICIAN,” The Military Surgeon, July, 1941. Reprint available: Write Camel Cigarettes, Medical Relations Division, 1 Peacock Square, New York City.



Camel

COSTLIER TOBACCOS

Smoking and Anxiety Disorders

- Nicotine has potent anxiogenic properties
- Heavy smoking associated with higher risk of developing
 - Agoraphobia
 - GAD
 - Panic disorder
- Increased risk for relapse during early stages of quit attempt
 - Breslau, 2004
 - Amering, 1999

SRI's and the Anxious Smoker

- SRI treatment can dramatically improve quit rates
 - Panic disorder
 - PTSD
 - Lagrue, 2002

© 1992 B&W T Co.

BARCLAY BARCLAY

99% tar free.

1 MG TAR 1 MG TAR - MENTHOL

The pleasure is back.
BARCLAY

Warning: The Surgeon General Has Determined
That Cigarette Smoking Is Dangerous to Your Health.
1992

Regular, 1 mg. "tar", 0.2 mg. nicotine av. per cigarette, FTC Report Dec. '81.
Menthol, 1 mg. "tar", 0.2 mg. nicotine av. per cigarette by FTC method.

Smoking and Alcohol Use

- Individuals are three times as likely to smoke if >5 drinks per day
- Consumption of alcohol
 - Increases length of time smoking
 - Increases number of puffs
 - Increases subjective smoking satisfaction

■ Dawson, 2000

Smoking and Alcohol Dependence

- At least 80% alcoholics smoke (3 times > than general pop.)
- Over 72% of alcoholics are heavy smokers (9% of general pop.)
- Increased urge to drink among alcoholic smokers when they smell cigarettes

■ Dawson, 2000

Links Between Smoking and Alcohol

- Possible cross tolerance of nicotine and alcohol
- Smoking decreases rate of gastric emptying
 - Absorption of alcohol delayed
 - Glautier, 1996

Cessation Treatment for Alcohol Users

- Standard cessation treatments are effective
- No evidence of increased use of other substances during cessation treatment
- Alcohol abstinence days greatest for those who quit smoking

- Saxon, 2003
- Kohn, 2003

Smoking and Schizophrenic Disorders

- Highest smoking rates than any other patient group
- Smoke 10 billion pack per year
 - More per day
 - Prefer high tar, high nicotine
 - Smoke to ends of cigarettes
 - D'Mello, 2001

Smoking and Schizophrenic Disorders

- Alleviates
 - Negative symptoms and depressive mood
- Improves
 - Cognitive and auditory sensory deficits
- Decreases
 - Side effects from traditional agents
 - Haustein, 2002
 - McEvoy, 2002

Modifiable Health Risk Factor

- $\frac{3}{4}$ are aware that smoking is harmful to their health
- Over $\frac{1}{2}$ want to quit

Smoking Cessation for Schizophrenic Disorders

- Switch from conventional antipsychotics whenever possible
- Inpatient treatments may provide unique opportunities for smoking cessation
- Traditional cessation programs and treatments may be inadequate
 - Harm reduction and NRT
 - May prefer nicotine inhaler over patch

Necessary Mental Health Care System Interventions

- Systematic identification processes that mesh with a non-medical practice style
- Educational efforts for providers that emphasize the detrimental effects of smoking on mental health
- Integration of cessation efforts with primary mental health treatments
- Address emotional/behavioral comorbidity that effect cessation efforts in primary care settings